to prevent the lens holder **31** from tilting or being scratched by an engagement of the plate spring **33** and lens holder **31**. Besides, the curved surface of the end portion shown in **FIG. 14** can be readily formed by etching.

[**0040**] Light Emitting Element

[**0041**] The light emitting element **11** is fixed to a rectangular parallelepiped light emitting element fixing substrate **41**, and this light emitting element fixing substrate **41** is mounted on the optical unit main body **19** with screws so that the light emitting element fixing substrate **41** is parallel and in contact with the optical unit main body **19**. **FIG. 15** and **FIG. 16** are illustrations showing this light emitting element fixing substrate **41** in which two mounting holes **41***a* are formed. In the example shown in **FIG. 15**, the two mounting holes **41***a* and the light emitting element **11** are arranged into a straight line along a Y-axis direction (the axial direction of the motor **18** perpendicular to the Z-axis as the optical axis direction of the light emitting element **11** (the optical axis direction of the reflected light from the aperture mirror **16**)), while in the example shown in **FIG. 16**, the two mounting holes **41***a* and the light emitting element **11** are arranged into a straight line along an X-axis direction (a direction perpendicular to the Y-axis direction and the Z-axis direction). In such an arrangement, since the light emitting element fixing substrate **41** can move in the X-axis direction and the Y-axis direction in a stable manner, it is possible to significantly reduce the number of working steps required for the X- and Y-axis adjustment of the light emitting element **11**.

[**0042**] **FIG. 17** is an illustration showing another example of the light emitting element fixing substrate **41**, in which, unlike the examples shown in **FIG. 15** and **FIG. 16**, the two mounting holes **41***a* and the light emitting element **11** are not arranged into a straight line. With this arrangement, it is possible to design a more compact light emitting element fixing substrate **41**, thereby saving space.

[**0043**] **FIG. 18** is an illustration showing the relationship between the sizes of the mounting hole **41***a* in the light emitting element fixing substrate **41** and a mounting member (screw) **42**. The radius of the mounting hole **41***a* is made larger than the radius of the mounting member **42** by an amount of no less than Δd/2. The value Δd satisfies the following conditional expression (A), and more specifically is in a range of around 0.4 to 0.6 mm. Further, **FIG. 19** and **FIG. 20** are an illustration showing the positional relationship among the light emitting element **11**, collimation lens **12**, lens holder **31** and optical unit main body **19** and an illustration showing the positional relationship between the light emitting element **11** and light emitting element fixing substrate **41**, respectively, and show part of parameters seen in this conditional expression (A).

$$\Delta d/2 \geqq (X^2+Y^2)^{1/2} \quad (A)$$

[**0044**] where

[**0045**] $X=(w/2-d)\cdot\sin\theta+m+r\cdot\sin j$

[**0046**] $Y=(w/2-d)\cdot\sin\eta+n+r\cdot\sin k$

[**0047**] $\theta=\theta_1+\theta_2$

[**0048**] θ_1: a tilt of the collimation lens **12** with respect to the lens holder **31** about the X-axis;

[**0049**] θ_2: a tilt of the lens holder **31** with respect to the optical unit main body **19** about the X-axis;

[**0050**] η_1: a tilt of the collimation lens **12** with respect to the lens holder **31** about the Y-axis;

[**0051**] η_2: a tilt of the lens holder **31** with respect to the optical unit main body **19** about the Y-axis;

[**0052**] w: a length of the lens holder **31**;

[**0053**] d: a length from the reference surface of the collimation lens **12** to the exit-side end face of the lens holder **31**;

[**0054**] r: a length from a point H (the intersection of a line normal to the reference surface of the light emitting element **11** and the Z-axis) to a light emitting point;

[**0055**] m: a self-deviation of the light emitting point of the light emitting element **11** with respect to the X-axis;

[**0056**] n: a self-deviation of the light emitting point of the light emitting element **11** with respect to the Y-axis;

[**0057**] j: a tilt of a line normal to the reference surface of the light emitting element **11** with respect to the Z-axis about the X-axis; and

[**0058**] k: a tilt of a line normal to the reference surface of the light emitting element **11** with respect to the Z-axis about the Y-axis.

[**0059**] Thus, since the radius of the mounting hole **41***a* is made larger than the radius of the mounting member **42** by an amount of no less than Δd/2, the light emitting element **11** fixed to the light emitting element fixing substrate **41** can obtain a necessary movable range during the X- and Y-axis adjustment, thereby permitting a significant reduction in the number of working steps required for the X- and Y-axis adjustment.

[**0060**] Aperture Mirror

[**0061**] **FIG. 21**, FIGS. **22**(*a*) and **22**(*b*) are cross sectional view and plan views showing the structure of the aperture **16***a* of the aperture mirror **16**. The aperture **16***a* for limiting the size of parallel light from the collimation lens **12** is formed in two or more stages so that the diameter in a stage closer to the collimation lens **12** is larger than that in the other stage, and the aperture **16***a* is formed in the shape of an elliptical hole (**FIG. 22**(*a*)) or a circular hole (**FIG. 22**(*b*)). Besides, the inner surface of the aperture **16***a* does not have a mirror finish and has a low reflectance.

[**0062**] By providing the aperture **16***a* in a plurality of stages, it is possible to reduce reflection at the inner surface of the aperture **16***a*. Moreover, by forming the aperture **16***a* in the shape of an elliptical hole or circular hole, it is possible to reduce the diffraction or reflection of light. Furthermore, by lowering the reflectance of the inner surface of the aperture **16***a*, it is possible to reduce reflection at the inner surface. It is therefore possible to prevent light other than parallel light from being projected onto the polygon mirror **15**.

[**0063**] **FIG. 23** and **FIG. 24** are illustrations showing the relationship between the structure of the aperture **16***a* and the optical unit main body **19**. In the example shown in **FIG.**